

THAT WHICH IS CLAIMED IS:

1. A method of cardiac diagnostics of a patient, comprising:
administering a stress test to the patient;
acquiring a plurality of MRI cine-loops of the heart of the patient at a plurality
5 of heart rates;
adjusting the plurality of MRI cine loops based on a heart rate associated with
respective ones of the MRI cines so as to compensate for differences in heart rate; and
evaluating the compensated MRI cine loops so as to assess a state of coronary
physiology of the patient.
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2. The method of Claim 1, further comprising adjusting the
administration of the stress test based on the evaluated compensated MRI cine loops.
3. The method of Claim 1, wherein the evaluation of the compensated
15 MRI cine loops comprises determining a presence or absence of coronary artery
disease based on the compensated MRI cine loops.
4. The method of Claim 1, further comprising simultaneously displaying
a plurality of the compensated MRI cine loops.
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5. The method of Claim 4, wherein at least one of the plurality of
compensated MRI cine loops comprises a resting heart rate cine loop.
6. The method of Claim 4, wherein evaluation of the compensated MRI
25 cine loops comprises determining a presence or absence of coronary artery disease
based on the simultaneously displayed plurality of compensated MRI cine loops
7. The method of Claim 4, wherein simultaneously displaying a plurality
of the compensated MRI cine loops comprises simultaneously displaying a plurality
30 of cine loops for differing locations associated with the heart of the patient for a single
dosage of a stress inducing agent.

8. The method of Claim 4, wherein simultaneously displaying a plurality of the compensated MRI cine loops comprises simultaneously displaying a plurality of cine loops for a single location associated with the heart of the patient for levels of stress of the patient.

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9. The method of Claim 1, wherein adjusting the plurality of MRI cine loops comprises adding frames to and/or removing frames from at least one of the plurality of MRI cine loops.

10 10. The method of Claim 9, wherein frames are added to and/or removed from respective ones of the MRI cine loops such that all of the MRI cine loops have a same number of frames.

11. The method of Claim 10, wherein adding frames comprises repeating
15 frames of an MRI cine loop.

12. The method of Claim 10, wherein the frames that are added or removed are evenly distributed throughout an MRI cine loop.

20 13. The method of Claim 1, wherein the MRI cine loops are compensated such that corresponding frames in each of the plurality of MRI cine loops correspond to a common relative time within a cardiac cycle of the patient.

25 14. The method of Claim 1, wherein the MRI cine loops are compensated so that differing heart rates of the patient visually appear to have a same duration.

15. The method of Claim 1, wherein adjusting the plurality of MRI cine loops comprises adjusting a duration of display of frames of a least one of the plurality of MRI cine loops such that each of the MRI cine loops has a common total
30 duration.

16. The method of Claim 15, wherein each of the MRI cine loops has a duration of at least one full cardiac cycle.

17. The method of Claim 15, wherein frames for which the duration is adjusted are evenly distributed throughout the MRI cine loop.

5 18. The method of Claim 1, wherein evaluation the compensated MRI cine loops comprise comparing at least two of the plurality of cine loops to each other.

19. The method of Claim 18, wherein one of the at least two of the plurality of cine loops is a baseline MRI cine loop.

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20. The method of Claim 18, further comprising registering frames of the plurality of MRI cine loops to the baseline MRI cine loop.

21. A method of displaying MRI cine loops comprising:
15 adjusting a characteristic of one frame of a plurality of frames of an MRI cine loop; and
propagating the adjustment of the one frame to other frames of the MRI cine loop.

20 22. The method of Claim 21, further comprising:
displaying a plurality of other MRI cine loops; and
propagating the adjustment of the one frame to frames of the other MRI cine loops.

25 23. The method of Claim 21, wherein adjusting a characteristic comprises cropping a frame of the plurality of frames to provide a portion of the frame.

24. The method of Claim 21, wherein adjusting a characteristic comprises adjusting a display level of the frame.

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